

## FUNCTIONAL AREA 13

### Website Administration and Development (WSAD)

Incumbents in this functional area create departmental websites and portals, implement website design, and manage the web content. Incumbents apply technical knowledge of web technologies including content, format, and information flow. At the more advanced levels (ITS III and above), incumbents develop and administer policies and procedures (including security) that promote the management of web resources as a key asset. They also support development teams, participate in strategic planning activities, contribute to architectural development, and act as consultants to other information technology personnel in solving complex enterprise web environment system problems and business re-engineering efforts.

WEBSITE ADMINISTRATION AND DEVELOPMENT	Assistant Information Technology Specialist	Information Technology Specialist I	Information Technology Specialist II	Information Technology Specialist III
<b>Knowledge of:</b>				
Basic internet design principles and methods	X	X	X	X
Basic standard graphics mark-up language (e.g. HTML)	X	X	X	X
Information gathering methods and organizational procedures and processes	X	X	X	X
Required technical information and ability to organize technical material for ease of learning/giving information	X	X	X	X
Online resources	X	X	X	X
Internet design principles and methods.		X	X	X
Standard graphics mark-up languages (e.g. HTML), scripting languages and tools.		X	X	X
Standard software validation tools.		X	X	X
Standard Internet protocols.		X	X	X
Basic web server maintenance techniques and support.		X	X	X
File formats used in the delivery of Web content.		X	X	X
Internet clients, such as browsers and streaming video.		X	X	X
Web administration tools.		X	X	X
Backup/recovery for the web and Internet environment.		X	X	X
Database management methods as used on the Internet.			X	X

Impact of the website installation plan on the whole IT system.			X	X
Web server operations and operating systems.			X	X
Web content management software			X	X
Website security principles and practices.			X	X
Website usability concepts, knowledge management and information rendering related to the website (Human computer interaction).			X	X
Multimedia principles, methods and tools.			X	X
Web-based accessibility technologies.			X	X
Technical requirements of graphical, text, and voice based browsers.			X	X
Website services architecture, operations, and operating systems.				X
Advanced website principles and technologies.				X
Advanced website administration tools.				X
New and emerging website technologies.				X
Advanced website programming, distributed processing and computing platforms.				X
<b>Ability to:</b>				
Maintain existing websites	X	X	X	X
Participate as part of a development team to create new sites and be given responsibilities for the building of simple web pages	X	X	X	X
Assist to test existing and prototype sites	X	X	X	X
Verify link functionality and measure download efficiencies	X	X	X	X
Develop websites that permit the publication and transmission of agency information to internal and external audiences.		X	X	X
Design, develop, test, maintain, and support website content, format, and information flow.		X	X	X
Ensure that website content is accessible to users.		X	X	X
Consult with clients to identify customer's requirements and create web applications that		X	X	X

enhance user-developed content and meet business and technical requirements.				
Convert user-developed content into a workable web page.		X	X	X
Maintain integrity of website information.		X	X	X
Create graphics, interactive applets, multi-media elements and links.		X	X	X
Create basic scripts or code.		X	X	X
Create easily navigable web pages.		X	X	X
Create web interfaces to databases.		X	X	X
Troubleshoot and resolve technical problems with the design and delivery of website services, escalating to a higher level if needed.		X	X	X
Ensure the operability of website services that provide customers with access to applications and data.		X	X	X
Carry out server maintenance functions.		X	X	X
Serve as technical specialist in the application of website technologies to meet the needs of customers.			X	X
Provide technical direction/leadership on teams responsible to plan, design, develop, test, integrate, and deploy website based applications that interface with varied configurations of hardware and software.			X	X
Deliver e-commerce and e-Government products and services to internal and external customers.			X	X
Develop databases supporting website services			X	X
Provide guidance in determining the most appropriate methods for delivering information via the web.			X	X
Select and apply the most effective delivery formats.			X	X
Evaluate, recommend, develop and maintain software tools and utilities that support development and maintenance of website applications and software.			X	X

Provide Internet support services that optimize customer experiences.			X	X
Evaluate website conformance with security/database integration requirements, and develop and maintain system security and firewall requirements based on State standards and department needs.			X	X
Test and optimize the functionality of systems, networks, and data.			X	X
Develop procedures and policies for analyzing, defining, developing, and implementing the agencies website design, development, and delivery strategies.				X
Lead the planning, development, and implementation of e-Government sites used to deliver services to the public.				X
Serve as senior expert and consultant to executive management to advise on integrating complex interactive web-based network applications using live relational databases with other programs of equivalent scope and complexity.				X
Advise other IT experts throughout the organization and in other organizations on a variety of situations and issues that involve applying or adapting new theories, concepts, principles, standards, methods, or practices, that are developed by the applicant or the applicant's leadership.				X
Evaluate and recommend proposals for acquisition of IT products or services.				X
Manage Internet servers.				X
Ensure the rigorous application of information security/information assurance policies, principles, and practices in the delivery of website services to maintain the availability and security of applications installed on the website.				X
Ensure optimal use of commercially available products.				X

Develop quality and content standards based on industry standards, management preferences and available resources.				X
Advise website content providers in the appropriate use of copyrighted electronic property.				X

***Assistant Information Technology Specialist (Website Administration and Development)***

Incumbents work under close technical supervision applying a basic understanding of internet design principles and standards to update contents and maintain web sites; work with key persons to identify relevant content and preferred presentation; build simple web pages; participate as members of teams responsible to develop concepts for web design and organizations; and assist to design, build and test complex web pages and links.

***Information Technology Specialist I (Website Administration and Development)***

Incumbents apply a basic understanding of web technology, web page development, and web enabled functions. This level assists in the design, development, testing, maintenance, and support of web content, format, and information flow. Incumbents assist in supporting, monitoring, and ensuring the operability of website services that provide customers with access to applications and data. They may be responsible to implement deployment strategies; configure, monitor, and fine-tune dedicated servers; coordinate the implementation of new services; analyze site statistics; troubleshoot problems; identify trends that may require action such as increasing bandwidth; and participate in planning for enterprise growth.

***Information Technology Specialist II (Website Administration and Development)***

Incumbents demonstrate proficiency of business and technical IT competencies, with a specialization in web development and Internet support. Incumbents apply knowledge of the organization's technology and business infrastructure to effectively perform the full range of web development and Internet support activities on systems with the following complexity factors: single website/textual content/electronic forms/database interface. Incumbents coordinate organization-wide implementation, development, and operation of website sites. Tasks performed may include the following:

- Apply knowledge of linkage and integration capabilities in the product design phase.
- Participate on teams responsible to plan, design, develop, test, integrate, and deploy web-based applications that interface with varied configurations of hardware and software.
- Evaluate website conformance with system security/database integration.

- Maintain integrity of website information.

***Information Technology Specialist III (Website Administration and Development)***  
***Range A***

Incumbents at Range A serve in a lead capacity and direct the work of assigned staff and/or serve as expert specialists who work independently and deal with the most complex web-based applications. Systems defined as most complex incorporate multiple websites, electronic forms, database interfaces, interactive applications, and e-commerce. Incumbents apply advanced knowledge of these types of website technologies to ensure the department takes optimum advantage of web-based solutions to accomplish departmental mission requirements. Incumbent responsibilities include planning for and directing website growth within the department; during the planning phase incumbents perform a key role in strategy and design. They also develop procedures and policies for analyzing, defining, developing, and implementing the department's website design, development, and delivery strategies. Specific tasks related may include:

- Lead the planning, development and implementation of an e-government site used to deliver services to the public.
- Coordinate the acquisition, installation, and configuration of the end-to-end infrastructure supporting the website site.
- Ensure the rigorous application of information security policies, principles and practices in the delivery of website services to maintain the availability and security of applications installed on the website site.
- Troubleshoot and resolve complex technical problems with the design and delivery of website services.

***Information Technology Specialist III (Website Administration and Development)***  
***Range B***

In addition to tasks performed at Range A, incumbents at the Range B level have responsibility to make decisions or recommendations to establish organization-wide policies and standards for web technologies, tools, and delivery systems. They coordinate and build consensus across an organization for website technology. Incumbents lead in the development of complex network applications using live relational databases for web-based online updating purposes. They direct the development of extremely complex and/or high volume websites involving multiple web interfaces, interactive applications, e-commerce. The scope and effect of these assignments are so critical that the consequence of error in making decisions or giving advice may have a serious and/or long term detrimental effect on mission critical aspects of the department's or state's operation.